

Status of Claims

Claims 1-5 remain for consideration. No consideration has been given by applicants to change the claimed subject matter for two reasons. One, the reference does not describe the subject matter already claimed. Two, applicants seek to develop the single issue without a peremptory finding of new issues raised.

The Drawing

The drawing appears to be acceptable.

Background

The invention is a method for re-allocating traffic in a wireless network. The network comprises multiple cells with one or more frequencies assigned to each cell. In any given cell, a fixed frequency re-allocation plan is predetermined so that reuse of frequencies in a given cell is automatically controlled. The re-allocation is responsive to real time measurements of traffic load.

The Rejection

The sole rejection of all claims pending is based on a single reference, a patent to Chawla et al. The rejection is made under 35 U.S.C. 102(e).

Argument

The rejection of record should not be sustained because there are significant material differences between claim 1, for example, and the disclosure of Chawla et al. The Chawla et al. patent (hereinafter Chawla) describes a system wherein two frequency reuse patterns are used. One pattern is used for one type of service, the other pattern is used for another type of service. Thus, for example, the frequency band that is available is allocated between voice transmission and data transmission. Since one type of service, typically data, is more demanding in terms of tolerance for error bits, that type of service may be assigned a relatively benign reuse pattern. The other service information, voice, that is more tolerant of noise and bit errors, is assigned a more aggressive reuse pattern. As a result, for the purpose of this discussion, Chawla has a high quality transmission system, and a low quality transmission system. The total of the available channels may be made available to either the high quality system or the low quality system. The channels allocated to one system or the other may be changed, or reassigned, depending on the signal to interference (SIR) ratio. The measurements made to implement the Chawla system are measurements of SIR.

Applicants' system is totally different. It allocates frequency spectrum in response to traffic without regard to the type of services involved. To do this applicants system measures traffic

These differences are explicit, or may be inferred from, the language in claim 1 that is highlighted below.

1. A method for radio resource allocation in a wireless cellular system that employs frequency reuse, said method comprising the steps of:

measuring cellular traffic load in said system as a function of available spectrum;

allocating co-channel resources within said system; and
progressively changing said co-channel resource allocation as said traffic load changes in accordance with a predetermined priority
in order to maximize the carrier to interference ratio.

The differences between claim 1 and Chawla are evident. Claim 1 specifies "measuring cellular traffic". Chawla measures signal to interference ratio (SIR). While these are in some cases related, measuring traffic is a simpler approach.

Claim 1 specifies "progressively changing.....allocation". There is no corresponding teaching in Chawla. Chawla changes from one distinct QoS to another distinct QoS.

Claim 1 specifies a "predetermined priority". By definition this implies several or many alternative options. Chawla has only one alternative. Thus Chawla cannot have a predetermined priority for the allocation change. Moreover, there is nothing about the Chawla system that suggests that spectrum allocation can or should be changed "progressively" based on a "predetermined priority".

In the event that the Examiner concludes that a telephone call would advance the prosecution of this application, the Examiner is invited and encouraged to call the undersigned attorney at Area Code 757-258-9018.

In view of these remarks, reconsideration and allowance of claims 1-5 is requested.

Respectfully,



Peter V. D. Wilde

Reg. No. 19658

Date: SEP 07 2004

Law Firm of Peter V.D. Wilde
301 East Landing
Williamsburg, VA 23185